

# KMS FORKLIFT TRAINING 201 COURSE

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## I. Forklift training information (OSHA Standard 1910.178)

### A. Operating instructions, warnings, and precautions

#### 1. Pre-trip

- a) Examine the forklift at least daily before using the equipment. If the forklift is in need of repair, do not use. Some of the items to inspect are as follows:
  - (1) Fuel system leakage
  - (2) Any signs of fluid leakage from under forklift
  - (3) Ensure that the fuel line is fully connected to the propane tank
- b) If the forklift is determined to be in need of repair, is defective, or is unsafe in any way, remove the forklift from service until it can be repaired by authorized personnel.

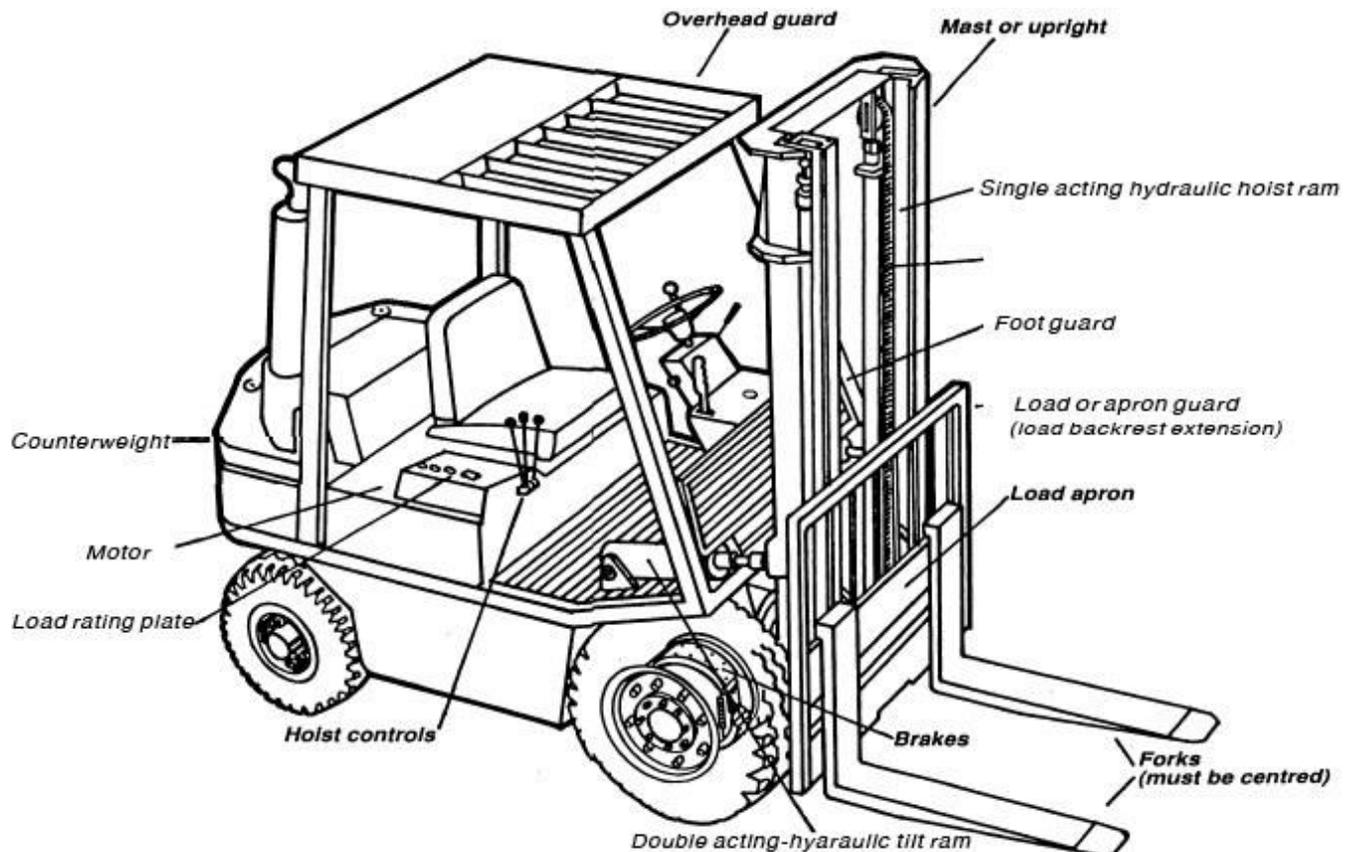
#### 2. Operation

- a) To start the forklift, follow these steps:
  - (1) Turn on the propane tank.
  - (2) Set the forklift to neutral. (It will not start if it is in gear.)
  - (3) While sitting on the seat with your foot on the break, start the engine.
  - (4) Disengage the parking break.
  - (5) Raise the forks off the ground (only high enough that they will not scrape on the floor when driving)
  - (6) If needed, turn on the headlights.
  - (7) Before putting the forklift in gear, check for people or objects in your line of travel.
  - (8) When the area is clear, put the forklift in gear.
- b) To turn off the forklift, follow these steps:
  - (1) Park the forklift in an area where it will not be in the way.
  - (2) Using the key, shut off the forklift engine.
  - (3) Set the parking brake.
  - (4) Set the forklift to neutral.
  - (5) Lower the forks to the ground.
  - (6) Make sure the headlights are turned off.
  - (7) Turn off the propane tank.

B. Differences between the forklift and the automobile

1. There are no mirrors on the forklift. When backing up, you simply have to look backwards to see where you are going.
2. There is only a forward and a reverse gear on the forklift. (The little forklift also has a High and Low range for the forward and reverse gears.)
3. The steer axle of the forklift is the rear axle, whereas on an automobile the front axle is the steer axle. This makes for a smaller turn radius for the forklift which enables sharp turns.

C. Forklift controls and instrumentation (where they are located, what they do, and how they work). Observe the following diagram.



D. Visibility (including restrictions due to loading)

1. When carrying a large load, drive in reverse to see well.
2. Honk the horn with the following conditions: (1) going around a corner, (2) driving forward with a large load, (3) approaching a potential blind spot.

E. Vehicle capacity

1. See the load capacity listed on the load-rated plate on the forklift.
2. A load is too heavy if the rear of the forklift begins to rise off the ground instead of the forks lifting the load itself.

F. Vehicle stability

1. Because the steer axle of the forklift is the rear axle, the forklift can turn sharply, but it is also at a greater risk of overturning if a turn is taken too sharply at too fast a speed.
2. Always keep the load as close to the ground as possible while driving to keep the center of gravity of the load close to the center of gravity of the forklift itself for a more stable, combined center of gravity.

G. Refueling

1. Turn off the engine.
2. To replace an empty propane tank with a full one, follow these steps to remove the empty tank:
  - a) turn off the valve on the propane tank, (b) disconnect the fuel line from the tank, (c) undo the clasps holding the tank to the forklift, and (d) remove the tank.
3. Follow these steps to add a full propane tank:
  - a) Put the full tank on, (b) tighten the clasps, (c) attach the fuel line, and (d) turn the valve on.

## II. Forklift operation in our warehouse

A. Surface conditions where the vehicle will be operated

1. Inside the warehouse, avoid driving through oil or other spills; clean them up immediately.
2. Outside the warehouse, only drive the forklift on the cement. The gravel is too soft to support the weight of the forklift. (The gravel can only be driven on when it is frozen and smoothed out).

B. Composition of loads to be carried and load stability

1. Our loads are primarily crates and pallets of household furniture and cartons.
2. Crates/vaults (3 different sizes)
  - a) Large
  - b) Small (overseas)
  - c) Blue hard plastic. This is the only size of crate that is so narrow that the forks will stick out the far side if fully inserted when lifting. Use caution so that you don't run the extended forks into an adjacent crate.

3. Pallets/skids: These loads are potentially less stable than crates because they are secured only with stretch-wrap. Avoid sharp turning, quick acceleration and sudden braking in order to avoid shifting/undoing the load.
- C. Load manipulation, stacking, and unstacking
1. Loading
    - a) Handle only stable or safely arranged loads. Exercise caution when handling off-center loads that cannot be centered.
    - b) Only handle loads within the rated capacity of the forklift.
    - c) Adjust long or high loads that could affect capacity.
      - (1) Use extensions for long loads
      - (2) Do not lift two crates (stacked) at the same time. Unstack one crate at a time.
    - d) Forks should be placed under the load as far as possible. Tilt the mast backward to stabilize the load.
    - e) Use extreme care when tilting the load forward or backward, particularly when placing things in high tiers. Tilting forward with forks is prohibited except to pick up a load. Do not tilt an elevated load forward except when the load is in deposit position over another crate.
  2. Stacking
    - a) Drive the load (crate or pallet) up to the crate you plan to stack it on.
    - b) Make sure there are no lights, garage-door tracks or opener motors, beams or other obstructions overhead that would be in the way of the lifted load.
    - c) Put the forklift in neutral and raise the load just high enough that it will clear the top of the crate you're stacking on. In neutral you can raise the load more quickly by pushing the gas pedal.
    - d) Drive forward until you are over the crate you want to stack on. Use the side-shift to position more accurately if needed, or slightly back up and realign then come forward again.
    - e) Lower the crate onto the other crate. Make sure the forks are free of the crate, check for anyone or anything behind you, then back out.
    - f) Lower the forks close to the ground again once you are clear of the crates.
- D. Pedestrian traffic in areas where the vehicle will be operated
1. Be aware of co-workers in your vicinity while operating the forklift. While the forklift beeps when backing up and has a flashing light, it still might be unexpected by a pedestrian co-worker when coming around a corner.

2. Give a quick honk on the horn when coming around a corner, such as entering/exiting the warehouse.
- E. Narrow aisles and other restricted places where the vehicle will be operated
  1. When placing a crate against a wall, watch out for outlets, fire extinguishers, or anything else protruding that might catch on the crate.
  2. The aisles are marked with white borders, so it is relatively easy to navigate on course without running into crates in adjacent aisles.
- F. Sloped surfaces that could affect the vehicle's stability
  1. The pavement outside the warehouse is not completely level, so make sure the parking brake is engaged when stopped so the forklift doesn't roll away into the gravel or someone/something.
  2. There is a slight bump at the threshold of the warehouse, so when driving a loaded forklift into the warehouse, go slowly to prevent roughly handling the load or potentially damaging anything.
- G. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide
  1. The garage doors of the warehouse can be opened to provide sufficient ventilation.

### III. Forklift safety (general)

- A. Forklifts shall not be driven up to anyone standing in front of a fixed object.
- B. No person shall be allowed to stand or pass under the elevated portion of any forklift, whether loaded or empty.
- C. Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of forklifts is authorized. (i.e., 1 seat = 1 person on forklift)
- D. Arms or legs are prohibited from being placed between the uprights of the mast or outside the running lines of the forklift.
- E. A forklift is considered unattended if the operator is 25 ft. or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.
- F. When the operator of a forklift is dismounted and within 25 ft. of the forklift still in his view, the forks shall be fully lowered, the forklift shall be in neutral, and the parking brake set.
- G. Do not block doorways or fire extinguishers with crates/pallets or the forklift itself.

### IV. Traveling

- A. If the load obstructs the operator's view, then he should drive in reverse until he is in position to stack/unstack.
- B. Look in the direction of, and keep a clear view of the path of travel.

- C. Ascend/descend grades/slopes slowly.
  - 1. When going down a slope, go in reverse; while going up a slope, go in forward, always keeping the load upgrade.
  - 2. On all slopes the forks should be tilted back and raised only as far as necessary to clear the road surface.
- D. Always travel at a speed that will permit you to stop in a safe manner.
- E. Stunt driving and horseplay shall not be permitted.
- F. Slow down for wet/slippery floors.
- G. Avoid running over loose objects.
- H. When turning, reduce speed to a safe level by turning the steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the steering wheel shall be turned at a moderate, even rate.

## V. Successful Operation

- A. Know the controls and instrument panel of the forklift.
- B. Drive the forklift adequately.
  - 1. Pre-trip, start-up, shut-down.
  - 2. Forward, reverse, and stopping.
- C. Stack/unstack a crate on top of another crate
  - 1. Different sizes of crates and pallets.
- D. Forklift OS into OS racks

[Watch this forklift training video.](#)